



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,952	03/16/2005	Hideo Hayashi	040565	8837

7590
SHELDON PALMER
630 THIRD AVENUE
7TH FLOOR
NEW YORK, NY 10017

04/01/2008

EXAMINER

HENRY, MICHAEL C

ART UNIT	PAPER NUMBER
----------	--------------

1623

MAIL DATE	DELIVERY MODE
-----------	---------------

04/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/510,952	Applicant(s) HAYASHI, HIDEO	
	Examiner MICHAEL C. HENRY	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following office action is a responsive to the Amendment filed, 09/13/07.

The amendment filed 09/13/07 affects the application, 10/510,952 as follows:

1. Claims 1-16 have been canceled. New Claims 17-31 have been added.
2. The responsive to applicants' arguments is contained herein below.

Claims 17-31 are pending in the application

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward (Abstract of Papers, 220th ACS National Meeting, Washington, DC, United States, August 20-24, 2000 (2000) CARB-080).

Claim 26 is a product-by-process claim wherein the applicant claims a modified gum arabic obtained by the method according to Claim 17. Ward discloses applicant's modified gum arabic (see abstract). A quotation from the MPEP (Manual of Patent Examining Procedure, 8 ed., August 2001) pertaining to Product-by-Process Claims is given below in order for further corroborate the reason for the aforementioned rejection. The quotation states that "PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product

Art Unit: 1623

itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).” In claim 27, applicant claims an emulsifier comprising the modified gum arabic obtained by the method according to Claim 17 as an active ingredient. Ward discloses applicant’s emulsifier comprising modified gum arabic (see abstract). In claim 28, applicant a method for preparing an emulsion which comprises using the modified gum arabic obtained by the method according to Claim 17 as an emulsifier. Ward discloses applicant’s method for preparing an emulsion which comprises using modified gum Arabic (see abstract). In claim 29 applicant claims the method for preparing an emulsion according to Claim 28 wherein the emulsion is an O/W or W/O/W emulsion which contains, as a dispersoid, at least one hydrophobic substance selected from the group consisting of essential oils, oily flavorings, oily colors, fat-soluble vitamins, polyunsaturated fatty acids, animal or vegetable oils, sucrose acetate isobutyrate, and medium-chain triglycerides. Ward discloses applicant’s method for preparing an emulsion (oil in water) which comprises using modified gum Arabic and various oils as dispersoid (see abstract). Claim 30 is a product-by-process claim wherein applicant claims an emulsion prepared by the method according to claim 28. Ward discloses applicant’s emulsion comprising modified gum Arabic (see abstract). In claim 31, applicant claims, the emulsion according to Claim 30 which is an O/W or W/O/W emulsion which contains, as a dispersoid, at least one hydrophobic substance selected from the group consisting of essential oils, oily flavorings, oily colors, fat-soluble vitamins, polyunsaturated fatty acids, animal or vegetable oils, sucrose acetate isobutyrate, and medium-chain triglycerides.

Art Unit: 1623

Ward discloses applicant's emulsion (oil in water) which comprises modified gum arabic and various oils (see abstract).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wilson et al. (US 3,226,378).

In claim 17, applicants' claim a method for preparing gum arabic having an improved emulsifying ability which comprises a step of heating the gum arabic at a temperature of not less than 60°C in an atmosphere having a relative humidity of 30-100 %.

Wilson et al. discloses a method for preparing gum arabic which comprises a step of heating the gum arabic at a temperature of 160 °F (71°C) to 190 (88 °C) in an atmosphere having a relative humidity between 50 and 85% (see claim 10 and examples). Wilson et al. is silent about the physical properties that pertains the emulsifying ability of the prepared gum Arabic. However, the silence of Wilson et al. with respect to emulsifying ability of the prepared gum Arabic does not mean that the said gum Arabic does not have an improved emulsifying ability,

Art Unit: 1623

especially since Wilson et al. disclose that the prepared product is purified and has an acceptable viscosity (see claim 10 and examples). Furthermore, it must be noted that the reaction condition used by Wilson et al. is the same as applicant's. Wilson et al. anticipates the claims if their gum Arabic has an improved emulsifying ability. Wilson et al. renders the claims as being obvious because, Wilson et al. because a skilled artisan would reasonable expect the purified gum arabic which has an acceptable viscosity to has an improved emulsifying ability. Dependent claims 18-27 which are drawn to said method wherein the gum Arabic is heated in the an atmosphere of specific relative humidity, wherein the gum arabic is heated at specific temperature and, and in closed or open system are also encompassed by the above rejection, since the reaction condition used by Wilson et al. is the same as applicant's. Similarly, Claims 26-27 which are product-by-process claims drawn to a modified gum arabic and an emulsifier (respectively) that are obtained by the method according to Claim 17, are also encompassed by the above rejection, since the reaction condition used by Wilson et al. is the same as applicant's. Wilson et al disclose applicant's modified gum arabic (see claim 10). A quotation from the MPEP (Manual of Patent Examining Procedure, 8 ed., August 2001) pertaining to Product-by-Process Claims is given below in order for further corroborate the reason for the aforementioned rejection. The quotation states that "PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made

Art Unit: 1623

by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).”

It should be noted that the Wilson et al.’s gum Arabic has been modified in that it presently has an acceptable plate count value and an acceptable viscosity (see claim 10). Furthermore, it must be noted that the reaction condition used by Wilson et al. is the same as that claimed by applicant.

Response to Arguments

Applicant's arguments with respect to claim 26-31 have been considered but are not found convincing.

The applicant argues that According to Ward [Exhibit A], it is clear that according to the process disclosed in Ward [Exhibit A], one obtains octenylsuccinylated gum arabic by treating gum arabic with octenylsuccinic acid. On the contrary, in newly added claims 26-31, the gum arabic is not octenylsuccinylated, since gum arabic is not treated with octenylsuccinic acid. That is to say, the obtained gum arabic in newly added claims 26-31 is different from the gum arabic described in Ward. Accordingly, claims 26-31 are not anticipated by Ward and are not subject to rejection under 35 U.S.C. § 102(b). On the contrary however, applicant claims does not exclude an octenylsuccinylated gum arabic since applicant’s claimed process “comprises a step of heating” and consequently does not exclude other steps such as treating gum arabic with octenylsuccinic acid. Furthermore, applicant’s process (as claimed in claim 26) also produces a modified gum Arabic which is the same as (or reads on) Ward’s octenylsuccinylated gum Arabic (i.e., modified gum Arabic). In addition, it should be noted that Ward’s modified gum Arabic (like applicant’s) also has an improved (enhanced) emulsifying ability.

The Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8.30am-5pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Henry

March 21, 2008.

/Shaojia Anna Jiang, Ph.D./
Supervisory Patent Examiner, Art Unit 1623